

REMARKS

This is a Response to the Final Office Action mailed April 4, 2007, in which a three (3) month Shortened Statutory Period for Response has been set, due to expire July 4, 2007. Enclosed is our check to cover the fee for a 1-month extension of time, to August 4, 2007. In accordance with 37 U.S.C. 1.114, a Request for Continued Examination (RCE) is filed concurrently with this Amendment so that the Office Action mailed April 4, 2007, is effectively made non-final. Claims 1 and 11 are currently amended. Claims 20-25 are newly added. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090. Claims 1-25 remain pending.

1. Rejections Under 35 U.S.C. § 102(a/e) and § 103(a) in View of the Priority Date

In the Office Action, at paragraph 4, claims 1-3, 5-7, 9-13, 15-17, and 19 stand rejected under 35 U.S.C. § 102(a) as allegedly anticipated by *Aoshima et al.* (EP 1351230). At paragraph 5, claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Aoshima* (EP 1351230). At paragraph 6, claims 1-3, 5-7, 9-13, 15-17, and 19 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Aoshima et al.* (U.S. Patent Publication No. 2003/0190551), hereinafter *Aoshima '551*. At paragraph 7, claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Aoshima '551*. At paragraph 8, claims 1-19 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Mishima et al.* (U.S. Patent Publication No. 2004/0152016), hereinafter *Mishima '016*. At paragraph 9, claims 1-19 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Inuoe et al.* (U.S. Patent Publication No. 2004/0076907), hereinafter *Inuoe*.

Aoshima EP 1351230 was published on October 8, 2003. *Aoshima '551* was filed in the U.S. on April 2, 2003. *Mishima '016* was filed in the U.S. on December 30, 2003. *Inuoe '907* was filed in the U.S. on October 14, 2003.

The present application was filed in the U.S. on January 26, 2004, and claimed priority to Japanese Patent Application No. 2003-19170 filed on January 28, 2003. The English-language translation of the priority Japanese Patent Application No. 2003-19170, as well as the requisite signed statement by a translator conversant in the English and Japanese languages, is filed concurrently with this Response. The January 28, 2003, foreign priority date precedes the

earliest dates for which *Aoshima* EP 1351230, *Aoshima* '551, *Mishima* '016, and *Inuoe* may be used as valid references. Therefore, the above-identified references do not properly qualify as prior art. Accordingly, it is respectfully requested that rejections made on the basis of the above-identified references be withdrawn

2. Rejections Under 35 U.S.C. § 103(a)

In the Office Action, at paragraph 11, claims 1-8, 10-14, and 19 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over either *Xu et al.* (CN 1330368), hereinafter *Xu*, or *Shuy et al.* (U.S. Patent Publication No. 2001/0021160), hereinafter *Shuy*, in view of either *Yoshida et al.* (JP 10-143919), hereinafter *Yoshida*, or *Aratani et al.* (EP 1122723), hereinafter *Aratani*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. § 103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements and/or features of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

a. Independent Claims 1 and 11

Claim 1 is allowable for at least the reason that the proposed combination of either *Xu* or *Shuy* in view of either *Yoshida* or *Aratani* does not disclose, teach, or suggest an optical recording medium comprising “at least one recording layer *positioned between the reflective layer and the light transmission layer*, ... the recording layer including a first recording film containing an element selected from the group consisting of Si, Ge, Sn, Mg, In, Zn, Bi and Al as a primary component and a second recording film containing Cu as a primary component and 10 to 30 atomic % of Al as an additive, wherein the element contained in the first recording film as a primary component and the element contained in the second recording film as a primary component *are mixed upon irradiation* with the laser beam,” as recited in claim 1 (emphasis added). Claim 11 is allowable for at least the reason that the proposed combination of either *Xu* or *Shuy* in view of either *Yoshida* or *Aratani* does not disclose, teach, or suggest “a plurality of information record layers positioned between the reflective layer and the light transmission layer, the recording being of the type in which data can be recorded by projecting a laser beam

thereonto, at least one information recording layer other than a information recording layer farthest from a light incidence plane through which a laser beam enters including a first recording film containing an element selected from the group consisting of Si, Ge, Sn, Mg, In, Zn, Bi and Al as a primary component and a second recording film containing Cu as a primary component and 10 to 30 atomic % of Al as an additive, wherein the element contained in the first recording film as a primary component and the element contained in the second recording film as a primary component are mixed upon irradiation with the laser beam,” as recited in claim 11 (emphasis added).

Xu is limited to disclosing that “under the radiation of recording light beam, the transparent layer and the reflection layer of said membrane are heated and take part in reaction to become alloy/compound” (Abstract). Accordingly, upon irradiation by laser, the transparent layer and the reflection layer react.

Shuy is limited to disclosing an “optical recording medium of the present invention is at least composed of a substrate, a transparent layer, and a reflecting layer. The present invention utilizes a light beam to heat the transparent layer and the reflecting layer, thereby forming a semi-transparent reflective area that is an alloy and/or compound of the transparent layer and the reflecting layer by means of an alloy/compound reaction. The alloy/compound reaction requires a minimum power-density threshold” (paragraph 12). “The individual thickness and chemical compositions of the transparent layer 30 and the reflecting layer 40 are selected such that, when heated by a light beam, *the transparent layer 30 and the reflecting layer 40 will react to form a semi-transparent reflective area 35* (as shown in FIGS. 2A and 2B). The chemical composition of the semi-transparent reflective area is an alloy and/or compound of the transparent layer 30 and the reflecting layer 40. The presence of the semi-transparent reflective area 35 (the recorded mark) produces an optical reflecting contrast against the non-recorded area of the reflecting layer” (paragraph 28, emphasis added). Accordingly, upon irradiation by a light beam, the transparent layer 30 and the reflection layer 40 react.

In contrast to either *Xu* or *Shuy*, claims 1 and 11 recite that the optical recording medium includes a recording layer between the reflective layer and the light transmission layer, and that the recording layer includes a first recording film and a second recording film that mix

upon irradiation with the laser beam. That is, the reflective layer and the light transmission layer do not mix upon irradiation with the laser beam.

Yoshida or *Aratani* at most disclose various chemical compositions which are used by the Office Action to modify the chemical compositions of the *Xu* or *Shuy* reflective layers and light transmission layers. However, even after modification of *Xu* or *Shuy* by *Yoshida* or *Aratani*, the reflective layer and the light transmission layer mix upon irradiation with the laser beam. This is quite different from a recording medium where the reflective layer and the light transmission layer do not mix upon irradiation with the laser beam, but rather, where the first recording film and the second recording film mix upon irradiation with the laser beam, as recited in claims 1 or 11.

Therefore, *Yoshida* or *Aratani* can not cure the deficiency in the teachings of either *Xu* or *Shuy*, and the proposed combinations of either *Xu* or *Shuy* in view of *Yoshida* or *Aratani* do not disclose at least the above-recited limitations of claims 1 or 11. Therefore, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claims 1 and 11 are not obvious under proposed combinations of either *Xu* or *Shuy* in view of *Yoshida* or *Aratani* and the rejection should be withdrawn.

b. Dependent Claims

Because independent claim 1 is allowable over the cited art of record, dependent claims 2-8 and 10 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that the dependent claims 2-8 and 10 contain all features/elements of independent claim 1. Similarly, because independent claim 11 is allowable over the cited art of record, dependent claims 12-14 and 19 (which depend from independent claim 11) are allowable as a matter of law for at least the reason that the dependent claims 12-14 and 19 contain all features/elements of independent claim 11. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, the rejection to these claims should be withdrawn.

3. Rejections Under 35 U.S.C. § 103(a)

In the Office Action, at paragraph 12, claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over either *Xu* or *Shuy* in view of either *Yoshida* or *Aratani*

further in view of *Morimoto et al.* (U.S. Patent 4,760,345), hereinafter *Morimoto*, and *Liang et al.* (EP 822543), hereinafter *Liang*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. § 103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements and/or features of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

a. Independent Claims 1 and 11

As noted above, after modification of either *Xu* or *Shuy* by *Yoshida* or *Aratani*, it is still the reflective layer and the light transmission layer that mix upon irradiation with the laser beam. This is quite different from a recording medium where the reflective layer and the light transmission layer do not mix upon irradiation with the laser beam, but rather, where the first recording film and the second recording film mix upon irradiation with the laser beam, as recited in claims 1 or 11.

Morimoto or *Liang* at most disclose various chemical compositions which are used by the Office Action to modify the chemical compositions of the *Xu* or *Shuy* reflective layers and light transmission layers. However, even after modification of *Xu* or *Shuy* by *Morimoto* or *Liang*, the reflective layer and the light transmission layer mix upon irradiation with the laser beam. This is quite different from a recording medium where the reflective layer and the light transmission layer do not mix upon irradiation with the laser beam, but rather, where the first recording film and the second recording film mix upon irradiation with the laser beam, as recited in claims 1 or 11.

Therefore, *Morimoto* or *Liang* can not cure the deficiency in the teachings of either *Xu* or *Shuy*, in view of *Yoshida* or *Aratani*. Therefore, the proposed combination of either *Xu* or *Shuy* in view of *Yoshida* or *Aratani*, further in view of *Morimoto* and *Liang*, does not disclose at least the above-recited limitations of claims 1 or 11. Accordingly, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claims 1 or 11 are not obvious under the proposed combinations of either *Xu* or *Shuy* in view of *Yoshida* or *Aratani*, further in view of *Morimoto* and *Liang*, does not and the rejection should be withdrawn.

b. Dependent Claims

Because independent claim 1 is allowable over the cited art of record, dependent claims 2-10 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that the dependent claims 2-10 contain all features/elements of independent claim 1. Similarly, because independent claim 11 is allowable over the cited art of record, dependent claims 12-19 (which depend from independent claim 11) are allowable as a matter of law for at least the reason that the dependent claims 12-19 contain all features/elements of independent claim 11. Accordingly, the rejection to these claims should be withdrawn.

4. Newly Added Claims 20-25

New claims 20-25 are based on subject matter that is explicit and/or inherent within the description of the specification and/or the drawings. More specifically, the Examiner is directed at least to the published Application, U.S. Publication No. 2004/0157158, at paragraph [0122], for the support for these newly added claims. Applicants submit that no new matter has been added in new claims 20-25, and that new claims 20-25 are allowable over the cited prior art. Therefore, Applicants request the Examiner to enter and allow the above new claims.

5. Conclusion

In light of the above amendments and remarks, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that all pending claims 1-25 are allowable. Applicants, therefore, respectfully request that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Armentrout by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired.

If the Examiner notes any informalities in the claims, he is further encouraged to contact Mr. Armentrout by telephone to expediently correct such informalities.

Respectfully submitted,
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